

Notice of Allowability

Application No.

09/987,175

Examiner

Negussie Worku

Applicant(s)

ITO, YOSHIYUKI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/13/01.
2. ☒ The allowed claim(s) is/are 1-51.
3. ☒ The drawings filed on 28 November 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/28/2001
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

[Signature]
4/28/05

KAW Williams

KIMBERLY WILLIAMS

SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: With respect to claims 1-8, the prior art searched and of record neither anticipates nor suggests an image forming device for forming images on sheets, the image forming device comprising: a main body and a sheet-supply cassette attachable to and detachable from the main body, the sheet-supply cassette including: a guide that guides edges of sheets housed in the sheet-supply cassette, the guide being movable to change position in accordance with size of housed sheets; a cam abutment portion that moves to a position that corresponds to the position of the guide; a cam with a cam surface, the cam movable so that the cam surface selectively moves toward and away from the cam abutment portion, the cam moving to a separated position, wherein the cam surface is separated from the cam abutment portion, when the sheet-supply cassette is detached from the main body; and a detected portion that moves in a linked manner with the cam; and the main body including: a cam mover that, when the sheet-supply cassette is attached to the main body, moves the cam until the cam surface of the cam abuts the cam abutment portion; and a detection portion that detects the detected portion moved in a linked manner with the cam; wherein the cam surface has a shape that varies movement amount of the cam into abutment with the abutment portion by the cam mover in accordance with the position of the guide.

With respect to claims 9-16, the prior art searched and of record neither anticipates nor suggests an image forming device for forming images on sheets, the image forming device comprising: a main body and a sheet-supply cassette attachable to and detachable from the main body, the sheet-supply cassette including: a guide that guides edges of sheets housed in the sheet-supply cassette, the guide being movable to change position in accordance with size of housed sheets; a guide cam that changes position integrally with the guide, the guide cam having a cam surface; a guide cam abutment portion movable selectively toward and away from the guide cam, the guide cam abutment portion moving to a separated position separated from the guide cam when the sheet-supply cassette is detached from the main body; and a detected portion that moves in a linked manner with the guide cam abutment portion; and the main body including: an abutment portion mover that, when the sheet-supply cassette is attached to the main body, moves the guide cam abutment portion until the guide cam abutment portion abuts the cam surface of the guide cam; and a detection portion that detects the detected portion moved in a linked manner with the guide cam abutment portion; wherein the cam surface of the guide cam has a shape that varies movement amount of guide cam abutment portion into abutment with the cam surface by the abutment portion mover in accordance with the position of the guide.

With respect to claims 17-25, the prior art searched and of record neither anticipates nor suggests a sheet-supply device for supplying sheets, the sheet-supply device comprising: a main body and a sheet-supply cassette attachable to and detachable from the main body, the sheet-supply cassette including: a guide that guides edges of sheets housed in the sheet-supply cassette, the guide being movable to change position in accordance with size of housed sheets; a cam abutment portion that moves to a position that corresponds to the position of the guide; a cam with a cam surface, the cam movable so that the cam surface selectively moves toward and away from the cam abutment portion, the cam moving to a separated position, wherein the cam surface is separated from the cam abutment portion, when the sheet-supply cassette is detached from the main body; and a detected portion that moves in a linked manner with the cam; and the main body including: a cam mover that, when the sheet-supply cassette is attached to the main body, moves the cam until the cam surface of the cam abuts the cam abutment portion; and a detection portion that detects the detected portion moved in a linked manner with the cam; wherein the cam surface has a shape that varies movement amount of the cam into abutment with the abutment portion by the cam mover in accordance with the position of the guide.

With respect to claims 26-34, the prior art searched and of record neither anticipates nor suggests a sheet-supply device for supplying sheets, the sheet-supply device comprising: a main body and a sheet-supply cassette attachable to and detachable from the main body, the sheet-supply cassette including: a guide that guides

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edges of sheets housed in the sheet-supply cassette, the guide being movable to change position in accordance with size of housed sheets; a guide cam that changes position integrally with the guide, the guide cam having a cam surface; a guide cam abutment portion movable electively toward and away from the guide cam, the guide cam abutment portion moving to a separated position separated from the guide cam when the sheet-supply cassette is detached from the main body; and a detected portion that moves in a linked manner with the guide cam abutment portion; and the main body including: an abutment portion mover that, when the sheet-supply cassette is attached to the main body, moves the guide cam abutment portion until the guide cam abutment portion abuts the cam surface of the guide cam; and a detection portion that detects the detected portion moved in a linked manner with the guide cam abutment portion; wherein the cam surface of the guide cam has a shape that varies movement amount of guide cam abutment portion into abutment with the cam surface by the abutment portion mover in accordance with the position of the guide.

With respect to claims 35-41, the prior art searched and of record neither anticipates nor suggests an image forming device for forming images on sheets, the image forming device comprising: a main body and a sheet-supply cassette attachable to and detachable from the main body, the sheet-supply cassette including: a cassette body having at least a base and a pair of side walls extending from the base; and a detected portion provided on at least one of the side walls, the detected portion indicating at least one of information relating to sheets housed in the cassette body and

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information relating the cassette body; and the main body including: a pressing portion that, when the sheet-supply cassette is mounted in the main body, presses the detected portion against the at least one side wall in a direction perpendicular to direction in which the side wall extends from the base; an information detection portion that receives repulsive force from the pressing portion pressing against the detected portion and that detects the information indicated by the detected portion based on the repulsive force; and a side wall support that supports the at least one side wall from bending under pressing force of the pressing portion against the detected portion.

With respect to claims 42-48, the prior art searched and of record neither anticipates nor suggests a sheet-supply device for supplying sheets to an image forming device, the sheet-supply device comprising: a main body and a sheet-supply cassette attachable to and detachable from the main body, the sheet-supply cassette including: a cassette body having at least a base and a pair of side walls extending from the base; and a detected portion provided on at least one of the side walls, the detected portion indicating at least one of information relating to sheets housed in the cassette body and information relating the cassette body; and the main body including: a pressing portion that, when the sheet-supply cassette is mounted in the main body, presses the detected portion against the at least one side wall in a direction perpendicular to direction in which the side wall extends from the base; an information detection portion that receives repulsive force from the pressing portion pressing against the detected portion and that detects the information indicated by the detected

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portion based on the repulsive force; and a side wall support that supports the at least one side wall from bending under pressing force of the pressing portion against the detected portion.

With respect to claim 49, the prior art searched and of record neither anticipates nor suggests a sheet-supply cassette used mounted in a sheet-supply device including a side wall supporter, the sheet-supply cassette comprising: a cassette body having at least a base and a pair of side walls extending from the base, the base and the pair of side walls defining an opening at a front of the cassette body with respect to a mounting direction of the cassette body into the sheet-supply device; a detected portion provided on at least one of the side walls, the detected portion indicating, in a manner adapted for detection by the sheet-supply device, at least one of information relating to sheets housed in the cassette body and information relating the cassette body; and a switching plate provided separately from the cassette body, the switching plate being switchably movable between a closing-off position and an expansion position, the switching plate closing off the front opening when in the closing-off position, the switching plate expanding the holding space of the cassette body when in the expansion position to enable the cassette body to house larger sheets than when the switching plate is in the closing-off position, wherein a free side of the at least one side is provided with a supported portion that contacts and is supported by the side wall supporter when the sheet-supply cassette is mounted in the sheet-supply device, the supported portion extending further from the base than a portion of the switching plate that is positioned

near the supported portion.

With respect to claim 50, the prior art searched and of record neither anticipates nor suggests a sheet-supply cassette adapted for insertion into a sheet-supply device body, the sheet-supply cassette comprising; a guide that guides edges of sheets housed in the sheet-supply cassette, the guide being movable to change position in accordance with size of housed sheets; a cam abutment portion that moves to a position that corresponds to the position of the guide; a cam with a cam surface, the cam being moved away from the cam abutment portion during an uninserted condition until the cam surface is separated from the cam abutment portion and toward the cam abutment portion during insertion until the cam surface abuts the cam abutment portion, the cam surface having a shape that varies movement amount of the cam into abutment with the abutment portion during insertion in accordance with the position of the guide; and a detected portion that moves in a linked manner with the cam.

With respect to claim 51, the prior art searched and of record neither anticipates nor suggests 51. A sheet-supply cassette adapted for insertion into a sheet-supply device body, the sheet-supply cassette comprising; a guide that guides edges of sheets housed in the sheet-supply cassette, the guide being movable to change position in accordance with size of housed sheets; a cam that moves to a position that corresponds to the position of the guide, the cam having a cam surface; a cam abutment portion that is moved away from the cam surface during an uninserted

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condition until the cam abutment portion is separated from the cam surface and toward the cam surface during insertion until the cam abutment portion abuts the cam surface; and a detected portion that moves in a linked manner with the cam, wherein the cam surface has a shape that varies movement amount of the cam abutment portion into abutment with the cam surface during insertion in accordance with the position of the guide.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 571-272-7472. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Negussie Worku

KA Williams